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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,523	09/23/2003	Craig Weissman	021735-000400US	5140

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EXAMINER

PHAM, KHANH B

ART UNIT	PAPER NUMBER
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2166

DATE MAILED: 03/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/669,523

Applicant(s)

WEISSMAN ET AL.

Examiner

Khanh B. Pham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Declaration under 37 C.F.R § 1.131

1. The Declaration filed on January 25, 2006 under 37 CFR 1.131 has been considered but is ineffective to overcome the Galindo-Legaria reference because it is not signed by all inventors. See MPEP 715.04 which states:

The following parties may make an affidavit or declaration under 37 CFR 1.131:

- (A) All the inventors of the subject matter claimed.
- (B) An affidavit or declaration by less than all named inventors of an application is accepted where it is shown that less than all named inventors of an application invented the subject matter of the claim or claims under rejection. For example, one of two joint inventors is accepted where it is shown that one of the joint inventors is the sole inventor of the claim or claims under rejection.
- (C) **> If a petition under 37 CFR 1.47 was granted or the application was accepted under 37 CFR 1.42 or 1.43, the affidavit or declaration may be signed by the 37 CFR 1.47 applicant or the legal representative, where appropriate.< .
- (D) The assignee or other party in interest when it is not possible to produce the affidavit or declaration of the inventor. Ex parte Foster, 1903 C.D. 213, 105 O.G. 261 (Comm'r Pat. 1903).

Affidavits or declarations to overcome a rejection of a claim or claims must be made by the inventor or inventors of the subject matter of the rejected claim(s), a party qualified under 37 CFR 1.42, 1.43, or 1.47, or the assignee or other party in interest when it is not possible to produce the affidavit or declaration of the inventor(s). Thus, where all of the named inventors of a pending application are not inventors of every claim of the application, any affidavit under 37 CFR 1.131 could be signed by only the inventor(s) of the subject matter of the rejected claims. Further, where it is shown that a joint inventor is deceased, refuses to sign, or is otherwise unavailable, the signatures of the remaining joint inventors are sufficient. However, the affidavit or declaration, even though signed by fewer than all the joint inventors, must show completion of the invention by all of the joint inventors of the subject matter of the claim(s) under rejection. In re Carlson, 79 F.2d 900, 27 USPQ 400 (CCPA 1935).

Accordingly, the 35 U.S.C 103 rejection based upon Galindo-Legaria and Guthrie is maintained in this Office Action.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. **Claims 1-25 are rejected** under 35 U.S.C. 103(a) as being unpatentable over Galindo-Legaria et al. (US 2005/0050041 A1) and in view of Guthrie et al. (US 6,587,854 B1), hereinafter "**Galindo**" and "**Guthrie**".

As per claim 1, Galindo teaches a method of optimizing a query in a database comprising:

- "generating view-level statistics for each of said plurality of view for each of the data table" at page 5, [0068];
- "receiving a SQL query" at page 5, [0067];

- “optimizing the SQL query based on the view-level statistic” at page 5, [0067]-[0069].

The difference between Galindo teaching and the invention of claim 1 is that Galindo uses “view-level statistic” instead of “tenant-level statistic” as claimed. Applicants’ specification defines “tenant-level statistic” is “number of rows accessible per tenant” (page 12 lines 15-17), which is a subset of all rows in the database. Galindo teaches that “view level statistic” includes total numbers of distinct rows of the view ([0069]), which is a subset of all rows in the data table. Further, multi-tenant database is well known in the art, in which each tenant is allowed to access a subset of rows in a data table, as exemplary by Guthrie. Guthrie teach a multi-tenant database having one or more data tables, each table having one or more logical columns defining data categories and one or more logical rows associated with one or more tenants, wherein a plurality of tenants have data stored in the data tables” at Col. 4 line 66 to Col. 5 line 15. Each of Guthrie’s “enterprise portioned data” is similar to Galindo’s view, both comprise a subset of all rows in the database table. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was make to combine Galindo and Guthrie’s teachings to optimize query based on enterprise-level statistic (i.e., “tenant level statistic”) in a multi-tenant database, in order to provide more accurate method and reduce the processing time since only a subset of data which associated with a particular tenant are processed instead of a whole table.

As per claim 2, Galindo and Guthrie teach the method of claim 1 discussed above. Guthrie teaches: "wherein each tenant includes one or more associated users" at Col. 5 lines 64-67. Galindo also teaches:

- "generating user-level statistics for each user of each tenant for each of the data tables" at page 5, [0068]; and
- "optimizing the SQL query based on the user-level statistic" at page 5, [0069].

As per claim 3, Galindo and Guthrie teach the method of claim 2 discussed above. Galindo also teaches: "wherein the user-level statistics are stored to a user-metadata table" at page 5, [0068].

As per claim 4, Galindo and Guthrie teach the method of claim 2 discussed above. Galindo also teaches: "wherein generating user-level statistics includes determining a total number of distinct rows for each of said plurality of users" at page 5, [0069].

As per claim 5, Galindo and Guthrie teach the method of claim 4 discussed above. Guthrie also teaches: "wherein the total number is an approximate number based on one or more of a) a number of rows viewable by the user and user below the user in a role hierarchy, b) a number of rows that are shared by a group to which the user belongs and c) a number of rows that are manually shared to the user by another user or group of users" at Col. 5 lines 1-6.

As per claim 6, Galindo and Guthrie teach the method of claim 2 discussed above. Galindo also teaches: "wherein generating user-level statistics for a user is performed according to one of a) on a schedule basis, b) after a predetermined number

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of queries by the user, and c) each time an unconstrained query is run by the user” at page 5, [0068].

As per claim 7, Galindo and Guthrie teach the method of claim 1 discussed above. Galindo also teaches; “wherein generating tenant-level statistic is performed on a periodic basis” at page 5, [0068].

As per claim 8, Galindo and Guthrie teach the method of claim 1 discussed above. Guthrie also teaches: “wherein generating includes determining a total number of distinct rows accessible for each of said plurality of tenant” at Col. 5 lines 1-6.

As per claim 9, Galindo and Guthrie teach the method of claim 8 discussed above. Galindo also teaches “the tenant level statistics are stored to a tenant metadata table” at page 5, [0068].

As per claim 10, Galindo and Guthrie teach the method of claim 1 discussed above. Guthrie also teaches: “wherein at least one column of one of said table include data associated with two or more tenants” at Col. 6 lines 35-50.

Claims 11-25 recite a system and method comprising similar limitations as in claims 1-10. Claims 11-25 are therefore rejected by the same reasons.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh B. Pham whose telephone number is (571) 272-4116. The examiner can normally be reached on Monday through Friday 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on (571) 272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Khanh B. Pham
Examiner
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A handwritten signature in black ink, appearing to read 'Kpham', with a long horizontal flourish extending to the right.

March 17, 2006